

# **NEW PRODUCT ASSESSMENT FORM**

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Billions of people worldwide are suffering from complaints liken stress, anxiety, depression, pain, inflammation, cravings and are turning to prescription medication with limited results, sides effects, addiction and even death.

Teenagers and adults are more educated than ever before and are looking for alternative medicine to overcome these challenges.

Frank Giampieri our Founder has developed a range of therapeutic products to assist with everyday life conditions. Our range consists of Terpene blends that help with anxiety, depression, pain and even sleep.

Terpenes are the aromas of plants, a class of organic compounds produced by a variety of plants and are also the biosynthetic building blocks.

Terpenes bind to receptors in the brain giving rise to various therapeutic effects and interact with the endocannabinoid System. Terpenes and terpenoids are the primary constituents of essential oils and medicinal plants. Terpenes are used extensively in perfumery and alternative medicines.



Terpenes work on the Endocannabinoid System known as (ECS) and designed to work on the central nervous system allowing our bodies to heal naturally

# THE ENDOCANNABINOID SYSTEM

The human endocannabinoid system (ECS) is a network of receptors spread throughout our entire body that control some of our most vital life functions, including our immune system, memory, appetite, sleep pattern, mood, and pain sensation.

# vital life functions, including our immune system, memory, appetite, **Disorders CBD Assists with: Endocannabinoid System Controls:** CTE Alzheimer's Glioblastoma Parkinson's Amyotrophic Lateral Migraines Multiple Sclerosis Fibromyalgia Depression Epilepsy Hypothalamus Pituitary gland Pineal gland Sclerosis (ALS) Parathyroid glands Thyroid gland Asthma Hypertension Diabetes Crohn's Disease Irritable Bowel Syndrome Pancreas Adrenal glands Cramps Testicular Cance Prostate Cance Osteoporosis

# The Endocannabinoid System known as (ECS)

- ECS is one of the most important systems in our body.
- ECS refers to a collection of cell receptors and corresponding molecules.
- Receptors can be seen as locks, the keys to these locks can be found in chemical molecules called Agonists or Ligands.
- The agonists bind to cells, relaying messages and giving the cell a specific direction.
- The cell receptors found in the ECS respond to certain types of agonists.
- An agonist is a substance that initiates a physiological response when combined with a receptor.
- The two main Endocannabinoid molecules are 2AG and Anandamide.
- There are two Primary Receptors in the ECS, CB1 receptor and the CB2 Receptor.
- Anandamide has a strong affinity for the CB1 Receptor and a much weaker affinity for the CB2. Where 2AG has a stronger affinity for the CB2 Receptor.
- Our bodies produce their own endogenous endocannabinoids. Anandamide and 2AG.
- Anandamide is considered the bliss molecule. It's released when we feel good and happy, eating chocolate also releases anandamide.
- Anandamide has an affinity for the CB1 receptor and partially binds to CB2.
   2AG has a slight affinity for CB2 receptor and works on certain enzymes in the ECS system, sometimes controlling Anandamide by clearing it out of the system and directing it elsewhere.
- Cannabinoid receptors are found all through the body giving rise to a variety of functions.
- CB1 receptors are mainly found in the Central Nervous System.
- CB2 receptors are found in the GI Tract, immune cells and Peripheral Nervous System.
- Endocannabinoids help to maintain homeostasis or balance in the body.
- A disrupted ECS leads to CNS in-balance and can also disrupt messages from the brain.
- When the brain can't communicate with the Central Nervous System it can't tell the immune system what to do causing a long list of issues.
- When the body can't produce enough endocannabinoids it then can't regulate the functions mentioned above.
- This is called Clinical Endocannabinoid Deficiency.
- Cannabinoids that are found in common plants, are called, Exogenous Cannabinoids, meaning produced outside the body, Endogenous meaning produced in the body.
- The basis of our products is to use the bodies endogenous cannabinoids in conjunction with terpenes to complete the entourage effect.

A 2011 report published in the British Journal of Pharmacology by Dr Ethan Russo found that the complex interaction between terpenes and cannabinoids "could produce synergy with respect to treatment of pain, inflammation, depression, anxiety, addiction, epilepsy, cancer, fungal and bacterial infections.

Read more at https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3165946/

Find out more about Terpenes via the links below

 $\underline{https://www.forbes.com/sites/david carpenter/2019/05/28/cbd-may-be-all-the-rage-but-cannabis-terpenes-are-about-to-hit-big/amp/$ 

 $\frac{https://www.forbes.com/sites/nickkovacevich/2019/01/02/budding-cannabis-trends-in-2019/\#75ae610d586f$ 

https://www.vogue.com/article/cannabis-terpene-cocktails-health-benefitshttps://ukshop.economist.com/products/the-world-in-2019?redirect=International

# **Currently competition to our product in the marketplace?**

At this stage our products have very little competition in the 'natural medicine' area. The Australian market has very little knowledge of Terpenes and the benefits they possess. The global market sees the US and Canada leading with Terpene knowledge, unfortunately Terpenes appear to still be grounded in the recreational cannabis market and rarely stand alone.

Our Terpene products stand alone with no need to be connected to Cannabis and are far more efficient than CBD products.

#### How do our products differ from its nearest competitor?

Our Terpene products are differentiated in the market by the way they are prepared, a process that assists in raising the availability of the product. There is no sublingual stand alone, terpene medicine in the Australian market.

#### **Research and Scientific studies**

#### **BCP** as an anti-cancer agent

https://www.ncbi.nlm.nih.gov/pubmed/27696789

https://www.ncbi.nlm.nih.gov/pubmed/26025912

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5083753/

https://www.ncbi.nlm.nih.gov/pubmed/21924548/

https://www.ncbi.nlm.nih.gov/pubmed/21924548/

#### **Brain Cancer & BCP**

https://www.ncbi.nlm.nih.gov/pubmed/24484210

#### **Breast Cancer & BCP**

https://www.ncbi.nlm.nih.gov/pubmed/18053325 https://www.ncbi.nlm.nih.gov/pubmed/23765383

#### **Cervical Cancer & BCP**

http://acgpubs.org/RNP/2011/Volume%205/Issue%201/31 RNP1008-286.pdf

Colon Cancer (BCP) <a href="https://www.ncbi.nlm.nih.gov/pubmed/26132906">https://www.ncbi.nlm.nih.gov/pubmed/26132906</a>

# **Gastric/Stomach**

**Cancer** (CPO) <a href="http://acgpubs.org/RNP/2011/Volume%205/Issue%201/31\_RNP1008-286.pdf">http://acgpubs.org/RNP/2011/Volume%205/Issue%201/31\_RNP1008-286.pdf</a>

## **Lymphatic Cancer** (BCP)

https://www.ncbi.nlm.nih.gov/pubmed/22567036 https://www.ncbi.nlm.nih.gov/pubmed/24484210Multiple

#### Myeloma (CPO)

https://www.ncbi.nlm.nih.gov/pubmed/23765383

#### **Ovarian Cancer** (CPO)

https://www.ncbi.nlm.nih.gov/pubmed/26004731

#### **Pancreatic Cancer (BCP)**

https://www.ncbi.nlm.nih.gov/pubmed/26132906

#### **Prostate Cancer** (CPO)

https://www.ncbi.nlm.nih.gov/pubmed/23765383

## **Skin Cancer/Melanoma** (BCP)

https://www.ncbi.nlm.nih.gov/pubmed/25819153

#### BCP as an analgesic

https://www.ncbi.nlm.nih.gov/pubmed/28729222 https://www.ncbi.nlm.nih.gov/pubmed/24210682

http://bone.imedpub.com/antiarthritic-and-anti-inflammatory-activity-of-beta-caryophyllene-against-freunds-complete-adjuvant-induced-arthritis-in-wistar-rats.pdf

#### **BCP** as an anti-inflammatory

http://bone.imedpub.com/antiarthritic-and-anti-inflammatory-activity-of-beta-caryophyllene-against-freunds-complete-adjuvant-induced-arthritis-in-wistar-rats.php?aid=7220

#### https://www.sciencedirect.com/science/article/pii/S0924977X13003027--

#### Myrcene

https://www.fundacion-canna.es/en/anti-inflammatory-anti-nociceptive-properties-v-myrcene

https://www.ncbi.nlm.nih.gov/pubmed/25622554

http://www.internationalhempassociation.org/jiha/jiha4208.html

https://bpspubs.onlinelibrary.wiley.com/doi/pdf/10.1111/j.1476-5381.2011.01238.x

# **General statistics about chronic pain**

**Painaustralia.org.au** reports that chronic pain is the most common reason as to why people seek medical assistance.

- An estimated 20 percent of adult Australians suffer chronic pain. More women than men experience chronic pain. It's most common in women in the 50-54 age bracket and men in the 55-59 age bracket.
- Injury is the most common cause of chronic pain (38 percent), though a further third, of all people who experience chronic pain are unable to identify the original cause. Other identified causes include arthritis, musculoskeletal conditions, headache, cancer-related pain, post-surgical persistent pain and non-specific lower back pain.
- Chronic pain is estimated to cost the Australian economy **\$34.3 billion each year**, which equates to \$10,847 for each person with the condition.

## **General statistics about anxiety and depression**

Beyond blue Australia reports anxiety is the most common mental health condition in Australia. On average, 1 in 4 people -1 in 3 women and 1 in 5 men - will experience anxiety.

Australian Bureau of Statistics. (2008). National Survey of Mental Health and Wellbeing: Summary of Results, 2007. Cat. no. (4326.0). Canberra: ABS.

In a 12-month period, over two million Australians experience anxiety Australian Bureau of Statistics. (2008). National Survey of Mental Health and Wellbeing: Summary of Results, 2007. Cat. no. (4326.0). Canberra: ABS.

Research suggests that people with certain personality traits are more likely to have anxiety.

Every year in Australia, approximately 14 per cent of the population (1 in 7) experiences an anxiety disorder and 2.7 per cent experiences GAD. Nearly 6 per cent of the population will experience GAD in their lifetime.

Australian Bureau of Statistics. (2008). National Survey of Mental Health and Wellbeing: Summary of Results, 2007. Cat. no. (4326.0). Canberra: ABS.

Research suggests that 10 per cent of the Australian population experiences social phobia during their lifetime, with 4.7 per cent experiencing social phobia in a 12-month period. More women than men appear to develop the disorder.

Australian Bureau of Statistics. (2008). National Survey of Mental Health and Wellbeing: Summary of Results, 2007. Cat. no. (4326.0). Canberra: ABS.

Close to 3 per cent of people in Australia experience OCD in their lifetime and approximately 2 per cent in a 12-month period.

Australian Bureau of Statistics. (2008). National Survey of Mental Health and Wellbeing: Summary of Results, 2007. Cat no. (4326.0). Canberra: ABS.

Around 12 per cent of Australians will experience PTSD in their lifetime. Serious accidents are one of the leading causes of PTSD in Australia.

Australian Bureau of Statistics. (2008). National Survey of Mental Health and Wellbeing: Summary of Results, 2007. Cat. no. (4326.0). Canberra: ABS.

Up to 40 per cent of the population will experience a panic attack at some time in their life.

Australian Bureau of Statistics. (2008). National Survey of Mental Health and Wellbeing: Summary of Results, 2007. Cat. no. (4326.0). Canberra: ABS.

Approximately 5 per cent of people in Australia will experience panic disorder in their lifetime, with 2.6 per cent experiencing panic disorder over a 12-month period. Australian Bureau of Statistics. (2008). National Survey of Mental Health and Wellbeing: Summary of Results, 2007. Cat. no. (4326.0). Canberra: ABS.